

EXPRESS MAIL NO.:EV333436803US

DATE OF DEPOSIT: December 31, 2003

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AUTOMATIC BONE MILL

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of Application No. 10/184,444, filed on June 28, 2002, which is hereby incorporated by reference.

Now vs PAT. NO. 6,824,087

FIELD OF THE INVENTION

[0002] The present invention generally relates to surgical instruments and their use. More particularly, the present invention relates to a bone mill for use in a surgical, medical, or other environment where ground bone particles are needed.

[0003] Ground bone particles can be used in various medical and surgical procedures. For example, finely ground bone particles can be used for spinal fusions, to repair defects caused by trauma, transplant surgery, or tissue banking. In this example, a surgeon may remove a portion of bone from a patient, grind the portion into fairly homogenous particles using a hand-powered rasp, and use the bone particles to patch and repair another area of bone, such as on the patient's spinal cord or skull. The step of grinding the portion of bone using a hand-powered rasp is a relatively long and strenuous operation, with mixed results depending on the bone, the rasp, and the operator's ability.

[0004] As with all instruments used in surgery, the hand-powered rasp must be sterile, and must maintain a sterile environment during a surgical procedure. Typically, a surgical instrument is sterilized before and/or after the surgical procedure to disinfect the instrument and remove any toxic debris and other contaminants. Instruments such as the hand-powered rasp are typically disassembled, sterilized using an autoclave or other sterilization procedure, and then reassembled. This process also introduces an element of time and expense that must be accounted for in the surgical procedure.